



GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 15, 2012

Certified Return Receipt Requested
7004 1160 0003 0191 8878

Kevin Butters
Towers Sand and Gravel, LLC
760 North Harrisville Road
Harrisville, Utah 84404

Subject: Fifth Review of Notice of Intention to Commence Large Mining Operations, Towers Sand and Gravel, LLC, Towers Sand and Gravel Mine, M/057/0006, Weber, Utah

Dear Mr. Butters:

The Division of Oil, Gas and Mining has completed a review of your Notice of Intention to Commence Large Mining Operations for the Towers Sand and Gravel mine, which was received April 2, 2012. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. Please address those items requested in the attached technical review by sending replacement pages of the original mining notice using **redline and strikeout** text.

Thank you for submitting the Trust Deed for the property in Harrisville which will be used as collateral reclamation surety. The Division needs to receive a few additional documents:

1. A reclamation contract signed by a member or manager of Towers Sand and Gravel and notarized. This form is available on the Division's web site at https://fs.ogm.utah.gov/pub/mines/minerals_related/forms/MR-RC-LMO.pdf.
2. A title report for the property.
3. Title insurance.

Please submit your response to this review together with the bonding documents by June 25, 2012.



Page 2 of 6
Kevin Butters
M/057/0006
May 15, 2012

The Division will suspend further review of the Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me at 801-538-5261 or Lynn Kunzler at 801-538-5310. Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in black ink, appearing to read 'PBB' followed by a stylized flourish.

Paul B. Baker
Minerals Program Manager

PBB:lk: eb
Attachment: Review
P:\GROUPS\MINERALS\WP\M057-Weber\M0570006-TowersLMO\final\rev5-4769-04112012.doc

**5th REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

**Towers Sand and Gravel, LLC
Towers Sand and Gravel
M/057/0006
May 14, 2012**

General Comment:

Apparently, the way the plan is currently written, only 90 acres of the 141.87 acres will be disturbed at any one time. The proposed surety is for only 90 acres, and as reclamation is completed, you will expand into the remaining 51.87 acres. While the Division can accept this concept, it will require that you provide a map or maps showing the sequence of progression and final reclamation to keep within the 90-acre bonded area. Please note that until reclamation/vegetation is determined successful—approximately three years after seeding is completed, the area still needs to be bonded, at least for revegetation. You will need to amend the plan and surety if you need to go beyond the 90 acres if reclamation is not completed or successful. See page 11 of the NOI.

R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
1		On a map please list the perennial streams, springs and other bodies of water, roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells, boreholes, or other existing surface or subsurface facilities within 500 feet of the permit boundary (R647-4-105.1.12). If such features do not exist please make this statement in the text. Maps D3 and D4 may show these features, but D3 does not have a scale, and D4 only shows the area within about 300 feet of the operation on the north and south.	whw	
2	B-1	On the plate dated April 6, 2011, or on a similar map please show the entire 141.87-acres permit area. Please identify the 90 acres that will be disturbed.	whw	
3	Appendix c1 drawing	Please label permit boundaries and disturbed area boundaries, and please also show areas for which there is no reclamation responsibility Please show the acreages for these areas.	whw	
4	Sections 110.2 and 110.3, pp. 11 and 12	Please include a reclamation map showing all facilities (roads) to be left in place. These roads should be shown in the anticipated locations although the final locations may change.	whw	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
5	110.2	Please include maps and cross sections of roads that will be left after reclamation.	whw	

R647-4-106 - Operation Plan

General Operation Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
6		<p>Please keep the terms and acreages consistent in the NOI. It appears the “disturbed area” shown on several of the maps, including Appendix A1, Appendix A2, and others is based on map B1 which shows a “Total Permit Area” of 81.6 acres and a “Total Bond Area” of 73.5 acres, yet the maps other than B1 do not use the phrases “total permit area” or “total bond area”. These areas shown on the maps are inconsistent with the text (Section 106.3) which shows a maximum number of acres disturbed at any given time as 90 acres. The maps need to show the current area to be approved for disturbance—90 acres according to the text, not 81.6 or 73.5 acres.</p> <p>Based on the “total acres” figure shown in Section 106.3, the Division assumes the entire property will be mined. As mining progresses, the maps will need to be modified to show the new areas. Typically in this type of scenario, operators show areas to be mined within the next five years and update the maps to show new areas to be bonded and permitted and those areas that have been reclaimed. The maps need to clearly show those areas that are covered under the bond.</p>	whw & pbb	

106.2 - Type of operations conducted, mining method, processing etc.

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
7	6	The NOI indicates there are plans to have concrete and asphalt plants in the future. The plan will need to be amended and the surety evaluated before these facilities are constructed.	lk	

106.6 - Plan for protecting & re-depositing soils

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
8	8	Please provide the seed mix that will be used to stabilize topsoil stockpiles. Include species and proposed rates as pounds of pure live seed per acre.	lk	

106.8 - Depth to groundwater, extent of overburden, geology

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
9	9	Please state whether an agreement exists with the water rights owner, Jerry V. Larsen, with regard to the potential disruption of the Hunt's Rock Spring. The statement that the water rights are owned by the entities comprising Towers does not satisfy this requirement.	tm	

R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
10		The current storm water pollution prevention plan (SWPPP) has expired. Please provide evidence that a SWPPP has since been approved and is current.	tm	

Fifth Review
Page 5 of 6
M/057/0006
May 14, 2012

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
11		Please provide an explanation of the parameters used for the hydrology calculations in Appendix G-6.	tm	

109.4 - Slope stability, erosion control, air quality, safety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
12	Page 10	A 50% slope is 2 horizontal to 1 vertical (2H:1V). A 1V:1H or 1H:1V slope is a 100% slope. Please correct.	lk	

R647-4-110 - Reclamation Plan

110.3 - Description of facilities to be left (post mining use)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
13		This comment in the previous review was not addressed: Please provide a detailed description of the regional detention basin that will be left as part of the post mining land use. This description needs to include the dimensions, capacity, cross-sections of the embankments, inlet and outlet design, etc. Water impounding structures can be left only if they are shown to have a sound hydrologic design and are needed to for, or will benefit, the post mining land use. This demonstration needs to be provided.	tm	

110.4 - Description or treatment/disposition of deleterious or acid forming material

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
14	Page 12	The plan needs to discuss reclamation and cleanup of potentially deleterious materials, such as fuels being stored on site, recycled asphalt, soils contaminated with spilled fuels, etc.	lk	

110.5 - Revegetation planting program

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
15	Page 12	The revegetation plan also needs to include ripping the area to a minimum depth of 12 inches after topsoil replacement. Seeding should take place right after ripping and should be scheduled for late fall to take advantage of the best window for vegetation establishment.	lk	

R647-4-113 - Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
16	Appendix S	The current escalation amount is 1.2% instead of 0.5%	whw	
17	Appendix S	Please use the Division's reclamation cost estimate forms. The Division wants the bonds to be based on a standard method.	whw	
18	Appendix S	The Division does not take into account scrap value. The Division will allow the reclamation cost estimate to be based on disposal of steel at a recycle facility rather than a landfill.	whw	

Fifth Review
Page 6 of 6
M/057/0006
May 14, 2012

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
19	Appendix S	Demolition: please show the cost basis for demolition and removal of equipment. The Division usually uses R. S. Means unit costs for demolition. If the equipment is portable then the cost would be that of loading the equipment onto a truck and shipping it to a disposal facility. Please include equipment dimensions.	whw	
20	Appendix S	Please use R.S. Means for removal of concrete footings.	whw	
21	Appendix S	Please base demolition/removal of trailers and sheds of R.S. Means unit costs.	whw	
22	Appendix S	Please include reference for disposal costs.	whw	
23	Appendix S	Please include unit costs and reference for blasting costs.	whw	
24	Appendix S	Please use the Division's worksheets for earthwork productivity and cost for dozer work. The Division uses Blue Book rates for earthwork costs and will give that information upon request.	whw	
25	section 1110.1	Section 1110.1 of the NOI says no more than 90 acres will be disturbed at any one time. Does that include areas where backfilling and grading have occurred but where the vegetation has not yet survived for three years after the last seeding?	whw	
26	106.4	Please include cost to remove fuel tanks.	whw	